CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

JAS-ANZ
ISO 9001:2000 CERTIFIED

Job No.: CQCE/BBMP/MY/W.No.12/2019-20 Date : 25.07.2019

TEST REPORT ON FINE AGGREGATES (SAND)
IS 383-1970 (RA- 2002)

Client : **Executive Engineer,** Dasarahalli Zone, BBMP, Bangalore.

Agency : **Sri. M. Yogesh (Professional global infrastructure privited limited),** Bangalore.

Name of Work : Restoration of road cut portion done by BWSSB (For water line and sanitary Line) in Shettyhalli old village area in ward no.12, Shettyhalli Sub Division , BBMP, Bangalore.

Date of Testing : 25.07.2019

Material : Sand (M.Sand) Total Wt. of Aggregates in gms **1000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	74	7.40	7.40	92.6	90-100
2.36	152	15.20	22.60	77.4	75-100
1.18	168	16.80	39.40	60.6	55-90
600 Micron	213	21.30	60.70	39.3	35-59
300 Micron	208	20.80	81.50	18.5	8-30
150 Micron	132	13.20	94.70	5.3	0-10

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30days from the date of testing.

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪಕಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

AE/MSand/12

Scanned by CamScanner

CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

JAS-ANZ
ISO 9001:2000 CERTIFIED

Job No.: CQCE/BBMP/MY/W.No.12/2019-20 Date : 30.07.2019

GRADATION FOR WMM
MORTH TABLE-400-11

Client : **Executive Engineer,** Dasarahalli Zone, BBMP, Bangalore.
Agency : **Sri. M. Yogesh (Professional global infrastructure privited limited),** Bangalore.
Name of Work : Restoration of road cut portion done by BWSSB (For water line and sanitary Line) in Shettyhalli old village area in ward no.12, Shettyhalli Sub Division , BBMP, Bangalore.

Date of Testing : 30.07.2019
Material Type : Wet Mix Macadam

Oven Dry.Wt 10500

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	410	410	3.9	96.1	95-100
22.4	2638	3048	29.0	71.0	60-80
11.2	2736	5784	55.1	44.9	40-60
4.75	1590	7374	70.2	29.8	25-40
2.36	1162	8536	81.3	18.7	15-30
0.600	810	9346	89.0	11.0	8-22
0.075	439	9785	93.2	6.8	0-8

Note:
1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30 days from the date of testing.

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

Scanned by CamScanner

CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

JAS-ANZ
ISO 9001:2008 CERTIFIED

Job No: CQCE/BBMP/MY/W.No.12/2019-20 **Date:** 30.07.2019

Aggregate Impact Value
IS: 2386 Part IV

Client	**Executive Engineer,** Dasarahalli Zone, BBMP, Bangalore.
Agency	**Sri. M. Yogesh (Professional global infrastructure privited limited),** Bangalore.
Name of the Work	Restoration of road cut portion done by BWSSB (For water line and sanitary Line) in Shettyhalli old village area in ward no.12, Shettyhalli Sub Division , BBMP, Bangalore.
Type of Mix	Wet Mix macadam
Date of Testing	30.07.2019

Sl No.	Details	Trial No.			Average
		1	2	3	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	377	379	381	22.43
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	83	85	87	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	294	294	294	
4	Aggregate Impact value = percent fines $100^* (W_2/W_1)\%$	22.02	22.43	22.83	

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

Note:

→ This test report should not be reproduced except in full, without written approval of the laboratory
→ The results indicated above are based on the tests carried out on the samples received in the laboratory
→ Any Query regarding the report must be reported within 30 days from the date of testing

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ದಾಸರಹಳ್ಳಿ ವಲಯ, ಬಾಪೂಜಿ ನಗರ
ಪೂರ್ವ ವಿಭಾಗ ಬಿಬಿಎಂಪಿ ಮುಖ್ಯ
ಎಸ್.ಎಂ. ರಸ್ತೆ, ದಾಸರಹಳ್ಳಿ, ಬೆಂಗಳೂರು.

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

Scanned by CamScanner

CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

JAS-ANZ
ISO 9001:2000 CERTIFIED

Job No.: CQCE/BBMP/MY/W.No.12/2019-20

30.07.2019

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Client	**Executive Engineer,** Dasarahalli Zone, BBMP, Bangalore.
Agency	**Sri. M. Yogesh (Professional global infrastructure privited limited),** Bangalore.
Name of Work	Restoration of road cut portion done by BWSSB (For water line and sanitary Line) in Shettyhalli old village area in ward no.12, Shettyhalli Sub Division , BBMP, Bangalore.
Technical Reference	IS 2386(Part 1) 1963 (RA 2011)
Type of Mix	Wet Mix Macadam
Sample ID	WMM Layer
Date of Testing	30.07.2019

Result : Flakiness Index = **12.36%**

Elongation Index = **14.21%**

Result : Combined Flakiness & Elongation index **26.57%**

Comments:

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

Note:

→ This test report should not be reproduced except in full, without written approval of the laboratory
→ The results indicated above are based on the tests carried out on the samples received in the laboratory
→ Any Query regarding the report must be reported within 30 days from the date of testing.

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಬಿ.ಆರ್.ಸ್ಕೂಲ್ ರಾಜರಾಜೇಶ್ವರಿನಗರ, ಬೆಂಗಳೂರು-೫೬೦೦೯೮

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

Scanned by CamScanner

CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

Job No. CQCE/BBMP/MY/W.No.12/2019-20

Date : 30.07.2019

ATTERBERG LIMITS TEST FOR WMM
MORTH TABLE-400-11

Client : **Executive Engineer,** Dasarahalli Zone, BBMP, Bangalore.
Agency : **Sri. M. Yogesh (Professional global infrastructure privited limited),** Bangalore.
Name of Work : Restoration of road cut portion done by BWSSB (For water line and sanitary Line) in Shettyhalli old village area in ward no.12, Shettyhalli Sub Division , BBMP, Bangalore.
Date of Testing : 30.07.2019
Material Type : Wet Mix Macadam

As per MORTH Table 400-13

Sl. No.	Particulars	Test Results	Standards as per Specifications
1	Liquid Limit	22.00	
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

Note:
1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30 days from the date of testing.

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

Scanned by CamScanner

CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

IAS-ANZ

Job No.: CQCE/BBMP/MY/W.No.12/2019-20 Date: 03.08.2019

TEST REPORT

Client	:	**Executive Engineer,** Dasarahalli Zone, BBMP, Bangalore.
Agency	:	**Sri. M. Yogesh (Professional global infrastructure privited limited),** Bangalore.
Name of the work	:	Restoration of road cut portion done by BWSSB (For water line and sanitary Line) in Shettyhalli old village area in ward no.12, Shettyhalli Sub Division , BBMP, Bangalore.
Source of location	:	Hot mix Plant, Bangalore.
Date of testing	:	03.08.2019

The results of the tests conducted on the bitumen sample using for Open Graded Premix surface

Sl. No	Description	Test Result	Requirement as per IS:73:2013
1	Penetration at 25 °C, 1/10 mm	85	80 to 100
2	Softening point, °C	51	Min. 45
3	Ductility at 27°C, cm	100 >	Min. 50
4	Flash Point, °C	298	Min. 220

Note:

⇒ This test report shall not be reproduced except in full, without written approval of the laboratory.
⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory.
⇒ Any Query regarding the report must be reported within 30days from the date of testing.

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಪೂರ್ವ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

Scanned by CamScanner

CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

JAS-ANZ
ISO 9001:2000 CERTIFIED

Job No.: CQCE/BBMP/MY/W.No.12/2019-20 Date: 03.08.2019

Aggregate Impact Value

IS: 2386 Part IV

Client	**Executive Engineer,** Dasarahalli Zone, BBMP, Bangalore.
Agency	**Sri. M. Yogesh (Professional global infrastructure privited limited),**
Name of the Work	Restoration of road cut portion done by BWSSB (For water line and sanitary Line) in Shettyhalli old village area in ward no.12, Shettyhalli Sub Division , BBMP, Bangalore.
Source / Location	Hot Mix Plant, Bangalore
Type of Mix	Open Graded Premix surface
Date of Testing	03.08.2019

Sl No.	Details	Trial No.		Average
		1	2	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	379	381	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	85	87	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	294	294	
4	Aggregate Impact value = percent fines			
	100* (W_2/W_1) percent	22.43	22.83	**22.63**

Comments:

→ Maximum allowable Aggregate Impact value for OGPS is 30%

Note:

⇒ This test report should not be reproduced except in full, without written approval of the laboratory
⇒ The results indicated above are based on the tests carried out on the samples received in the laborat
⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

Scanned by CamScanner

CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

JAS-ANZ
ISO 9001:2000 CERTIFIED

Job No: CQCE/BBMP/MY/W.No.12/2019-20 06.08.2019

BITUMEN CONTENT AND GRADATION DETERMINATION OF OPEN GRADED PREMIX SURFACE
AASHTO T 164 & AASHTO T 30

CLIENT	**Executive Engineer,** Dasarahalli Zone, BBMP, Bangalore.
AGENCY	**Sri. M. Yogesh (Professional global infrastructure privited limited),**
NAME OF THE WORK	Restoration of road cut portion done by BWSSB (For water line and sanitary Line) in Shettyhalli old village area in ward no.12, Shettyhalli Sub Division , BBMP, Bangalore.
SAMPLE I/D	Sample Supplied by Agency
DATE OF TESTING	06.08.2019

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Sample 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	474.5	474
3. Weight of Asphalt and Mineral matter Extracted, g	25.5	26
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g	-	-
6. Weight of Bitumen Extracted, g. (corrected)	25.5	26
7. Bitumen content in %	5.10	5.20
8. Average	**5.15**	

GRADATION AFTER EXTRACTION

TABLE - 1

Sieve size in mm	Percent Passing, %		Specified Limits as per MORTH specification
	Sample 1	Sample 2	
13.2	100.00	100.00	100
11.2	94.5	95.8	88-100
5.6	45.9	44.2	31-52
2.8	16.5	15.8	5.-25
0.09	2.8	3.2	0-5

Note:

- This test report should not be reproduced except in full, without written approval of the laboratory
- The results indicated above are based on the tests carried out on the samples received in the laboratory
- Any Query regarding the report must be reported within 30 days from the date of testing

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು

For CIVIL QUALITY CONSULTANTS

Authorised Signatory

Scanned by CamScanner

CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

JAS-ANZ
ISO 9001:2000 CERTIFIED

Job No: CQCE/BBMP/MY/W.No.12/2019-20 06.08.2019

BITUMEN CONTENT AND GRADATION DETERMINATION OF OPEN GRADED PREMIX SURFACE AASHTO T 164 & AASHTO T 30

CLIENT	**Executive Engineer,** Dasarahalli Zone, BBMP, Bangalore.
AGENCY	**Sri. M. Yogesh (Professional global infrastructure privited limited),** Bangalore.
NAME OF THE WORK	Restoration of road cut portion done by BWSSB (For water line and sanitary Line) in Abbigere village F Bus stop surrounding area in ward no.12, Shettyhalli sub division , BBMP, Bangalore.
SAMPLE I/D	Sample Supplied by Agency
DATE OF TESTING	06.08.2019

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Sample 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	473.5	474.5
3. Weight of Asphalt and Mineral matter Extracted, g	26.5	25.5
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g	-	-
6. Weight of Bitumen Extracted, g. (corrected)	26.5	25.5
7. Bitumen content in %	5.30	5.10
8. Average	5.20	

GRADATION AFTER EXTRACTION

TABLE - 1

Sieve size in mm	Percent Passing, %		Specified Limits as per MORTH specification
	Sample 1	Sample 2	
13.2	100.00	100.00	100
11.2	92.6	93.4	88-100
5.6	34.5	36.2	31-52
2.8	12.8	13.8	5.-25
0.09	3.6	4.1	0-5

Note:

- This test report should not be reproduced except in full, without written approval of the laboratory
- The results indicated above are based on the tests carried out on the samples received in the laboratory
- Any Query regarding the report must be reported within 30 days from the date of testing

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು'
'ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
.ಎಸ್.ಎಂ. ರಸ್ತೆ. ರವೀಂದ್ರನಗರ. ಬೆಂಗಳೂರು.

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

Scanned by CamScanner

CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

JAS-ANZ
ISO 9001:2000 CERTIFIED

Name of Work : Restoration of road cut portion done by BWSSB (For water line and sanitary Line) in Shettyhalli old village area in ward no.12, Shettyhalli Sub Division , BBMP, Bangalore.

Name of Client	:	**Executive Engineer,** Dasarahalli Zone, BBMP, Bangalore.
Contractor/Agency	:	**Sri. M. Yogesh** (Professional global infrastructure privited limited), Bangalore.
Total Cost	:	Rs. 77.26Lakhs
Date of Inspection	:	10.08.2019
Status of Bill	:	1st & Final Bill
In the Presence of	:	(a) **Assistant Engineer (Dasarahalli Zone ward no.12),** BBMP, Bangalore.
	:	(b) **Mr. Jayanth Kumar R,** Engineer
ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು	:	M/s Civil Quality Consultants & Engineers, Bangalore.

PMC Report

Sl. No	Description of the Item	Units	Qty	Comments / observations
1	Restoration of roads in Shettyhalli old Village area			
a	Restoration of road cut portion done by BWSSB Limits (110 villages) (750mm width of road cutting)	Per Mtr	198.20	Work done up to the billed quantity and Quality is satisfactory
b	Restoration of road cut portion done by BWSSB Limits (110 villages) (900mm widthof road cutting) for water line	Per Mtr	3077.30	Work done up to the billed quantity and Quality is satisfactory
c	Restoration of road cut portion done by BWSSB Limits (110 villages) (1200mm widthof road cutting) for sanitary line	Per Mtr	3020.60	Work done up to the billed quantity and Quality is satisfactory

For CIVIL QUALITY CONSULTANTS & ENGINEERS

CIVIL QUALITY CONSULTANTS & ENGINEERS Bangalore

AE/Ward/12

Authorised Signator

Scanned by CamScanner